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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte URI SEGAL, OANA SIDI, RON WEIN, and DANIEL BAUM

Appeal 2019-002388
Application 15/007,699
Technology Center 2600

Before JOHNNY A. KUMAR, JOHN A. EVANS, and
JASON J. CHUNG, *Administrative Patent Judges*.

KUMAR, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Introduction

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals the Final Rejection of claims 3–6, 8–13, and 15–24. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Invention

The invention relates to automated data processing, specifically the application of ontology programming to process and analyze communication data. Spec.¶ 2. In particular, a set of significant phrases and a set of significant phrase co-occurrences are extracted from an input set of documents. *Id.* ¶ 4. Independent claim 3 is reproduced below:

> 3. A method for automatically extracting a set of significant phrases from an input set of documents that originate from a common source and an input generic language model, the method comprising:
>
> accepting, by *a computing system*, the generic language model and *the set of documents* as inputs, wherein the generic language model models a language distribution of *generic texts* that are not specific to *the common source*;
>
> generating, by *the computing system*, a source-specific language model by at least: subdividing each document of the set of documents into meaning units, each meaning unit comprising one or more n-grams, counting the n-grams of each meaning unit up to a predetermined order, and once the n-grams are counted, source-specific language-model probabilities are estimated based on the counts and the source-specific language model is obtained;

[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. According to Appellant, Verint Systems Ltd. is the real party in interest. Appeal Br. 3.

> creating, by *the computing system*, a set of candidate phrases where each candidate in the set of candidates is an n-gram, wherein creating the set of candidates comprises computing a prominence score for each n-gram of each meaning unit in the set of documents, and if the prominence score of a given n-gram is above a prominence score threshold and if the given n-gram is not an unigram, then a stickiness score for the given n-gram is calculated based on a probability of the given n-gram in the source-specific language model as compared to a probability of a constituent n-gram of the n-gram in the source-specific language model, wherein the prominence score of the given n-gram is calculated based on a probability of the given n-gram in the source-specific language model as compared to the generic language model, and wherein the given n-gram is added to the set of candidate phrases based on whether the stickiness score is greater than a stickiness score threshold;
>
> filtering, by *the computing system,* the set of candidate phrases by at least calculating a frequency for each of the candidate phrases, calculating an overall phrase score for each of the candidate phrases, and selecting, by *the computer system*, as the set of significant phrases those phrases of the candidate phrases for which the overall phrase scores are above a threshold phrase score; and
>
> storing, by *the computing system*, the set of significant phrases.

Appeal Br. 22–23; Claims App. (emphases added to indicate additional, i.e., non-abstract, elements).

REJECTION

Claims 3–6, 8–13, and 15–24 stand rejected under 35 U.S.C. § 101 as being directed to patent ineligible subject matter. Final Act. 3–5.

ANALYSIS

We have only considered those arguments that Appellant actually raised in the Briefs.[2] Arguments Appellant could have made, but chose not to make, in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2019).

A. The Examiner's Rejections and Appellant's Arguments

The Examiner concludes that the present claims recite mental processes achievable by a human using a pen and paper. Final Act. 3–4; Ans. 5–6 (citing *Digitech Image Techs. v. Elecs. for Imaging*, 758 F.3d 1344 (Fed. Cir. 2014); *Content Extraction and Transmission, LLC v. Wells Fargo Bank*, 776 F.3d 1343 (Fed. Cir. 2014)). The Examiner further concludes that the abstract idea is not integrated into a practical application, because the claims, rather than being directed to technological improvements to the computer or field, "involve comparing received information to known information when determining significant information/text, i.e. steps achievable by a generic computer" (Final Act. 3; *see also* Ans. 6), and "do not improve the existing technology beyond merely extracting phrases from a document and storing the extracted phrases, and linking the process to a generic computer." Ans. 7. The Examiner also determines that the claims do not recite additional elements that amount to significantly more than the judicial exception, because the additional elements amount to no more than mere instructions to implement the idea on a generic computer. Final Act. 4; Ans. 6.

[2] Claims 4–6, 8–13, and 15–24 are not argued separately from claim 3 in either of Appellant's briefs (Appeal Br. 8–21; Reply Br. 2–7). Therefore, claims 4–6, 8–13, and 15–24 will not be separately addressed.

Appellant argues that the claimed invention is not directed to an abstract idea and cannot be performed by a human mind. Appeal Br. 12, 15. Appellant further argues that the claims do not preempt the use of a judicial exception because the claims tie meaningful actions to a practical application. Reply Br. 6–7 (The claims "do not result in the monopolization of a judicial exception . . . such that each claim, as a whole, is more than a drafting effort designed to monopolize any judicial exception."). Appellant argues that the claims recite steps that amount to a practical application. *Id.* at 3–5. Appellant contends that, unlike *Digitech* or *Content Extraction*, the claimed invention solves a technological problem related to computer technology, namely "how a computer system can process an input set of documents using a generic language model to automatically extract significant phrases in the set of documents" (Appeal Br. 16; *see* 14–15 (citing Spec. ¶ 69);[3] *see also* Reply Br. 5–6), similar to the claims in *McRO*.[4] *See* Appeal Br. 13–17. Appellant further argues that the claimed steps are not well-known, generic, or conventional (*id.* at 19), and that absence of prior art teaching the claimed steps is evidence that the steps are not well-known or conventional. *Id*. Appellant avers that the Examiner's analysis is deficient, because the Examiner ignores the additional elements and does not clearly explain why the additional elements, taken individually or as a combination, do not add significantly more to the judicial exception. *Id.* at 19–21.

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[3] A paragraph "69" does not appear in Appellant's Specification. The quoted language (*see* Appeal Br. 15) appears to be from paragraph 51 of Appellant's Specification.

[4] *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)

B. Principles of Law

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court's two-part framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.,* the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making waterproof cloth, vulcanizing India

rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Court held that "a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 187; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Court also indicated that a claim "seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citation omitted) (citing *Benson* and *Flook*); *see, e.g.*, *id*. at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (citation omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

C. USPTO Section 101 Guidance

In January 2019, the USPTO published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance").[5] "All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." *Id.* at 51; *see also* October 2019 Update at 1.

Under the 2019 Revised Guidance and the October 2019 Update, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) ("Step 2A, Prong One"); and
>
> (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) ("Step 2A, Prong Two").[6]

2019 Revised Guidance, 84 Fed. Reg. at 52–55.

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[5] In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the "October 2019 Update") (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

[6] This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. 54–55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, to whether the claim:

> (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or
>
> (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

2019 Revised Guidance, 84 Fed. Reg. at 52–56.

D. Step 2A, Prong 1

Patent eligibility under 35 U.S.C. § 101 is a question of law that is reviewable *de novo*. *See Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). Because claim 3 requires generating a source-specific language model by subdividing, counting, and estimating probabilities; creating a set of candidate phrases by calculating a prominence score and a stickiness score, and comparing the stickiness score to a threshold; filtering the set of candidate phrases by calculating a frequency of each of the candidate phrases to create a set of significant phrases; and storing the significant phrases, we conclude the non-emphasized portions of claim 3, reproduced above (*see supra* at 2–3), recite concepts that can be practically performed in the human mind or by using pen and paper (*see* Memorandum, 84 Fed. Reg. at 52 n.14), and mathematical calculations. Thus, the present claims describe subject matter relating to mental processes and mathematical concepts. Moreover, mental processes and mathematical concepts are types of abstract ideas. *See* Memorandum, 84 Fed. Reg. at 52.

The present claims recite concepts that be performed in the mind or by using pen and paper, which falls under the category of mental processes (i.e., an abstract idea). Namely, the claims require features such as, "subdividing each document of the set of documents into meaning units," "counting the n-grams of each meaning unit," "if the prominence score of a given n-gram is above a prominence score threshold," "wherein the given n-gram is added to the set of candidate phrases based on whether the stickiness score is greater than a stickiness score threshold," "filtering . . . the set of candidate phrases," "selecting . . . as the set of significant phrases those phrases of the candidate phrases for which the overall phrase scores are above a threshold phrase score," and "storing . . . the set of significant phrases," which are all features that can be performed practically in the human mind or by using pen and paper, and therefore are abstract ideas. In particular, these claim features are directed to organizing, comparing, analyzing, and storing data, which are concepts that have been held to be able to be performed mentally or analogous to human mental work. *See, e.g.*, *Content Extraction and Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1345, 1347 (Fed. Cir. 2014) (claims directed to an application program interface comprising a scanner that extracted data from hard copy documents, a processor that recognized specific information from the extracted data, and a memory that stored the information, were directed to the basic concept of "data collection, recognition and storage" that humans have always performed); *Elec. Power Group, LLC v. Alstom, S.Z.*, 830 F.3d 1350, 1351, 1355 (Fed. Cir. 2016) (selecting, collecting, and analyzing information and displaying results from the collecting and analyzing are ordinary mental processes); *see also* MPEP 2106.04(a)(2). For example, Appellant's

Specification discloses that subdividing each document into meaning units and counting the n-grams of each meaning unit may be counting the number of words in each sentence (Spec. ¶¶ 43–46 ("[T]he meaning unit may be the equivalent of a sentence" (*id.* ¶ 43); "an *n*-gram (a sequence of *n* words)" (*id.* ¶ 45))), which can be done mentally or with pen and paper. Similarly, the features of "if the prominence score of a given n-gram is above a prominence score threshold" and "wherein the given n-gram is added to the set of candidate phrases based on whether the stickiness score is greater than a stickiness score threshold," merely require comparing one number, i.e., prominence or stickiness score, and another number, i.e. prominence or stickiness score threshold, respectively, and discarding the *n*-gram if the score is lower than the threshold. *Id.* These claimed features, therefore, are all tasks that humans routinely perform mentally and can be performed in the mind.

The present claims further recite concepts relating to performing mathematical calculations, which falls under the category of mathematical concepts (i.e., an abstract idea). The claims require features such as, "source-specific language-model probabilities are estimated," "computing a prominence score for each n-gram of each meaning unit," "a stickiness score for the given n-gram is calculated based on a probability of the given n-gram . . . as compared to a probability of a constituent n-gram," "the prominence score of the given n-gram is calculated based on a probability," "calculating a frequency for each of the candidate phrases," and "calculating an overall phrase score," which are all features directed to mathematical concepts, and therefore are abstract ideas. *See, e.g.*, *Digitech Image Techs., LLC v. Elec. For Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014) (a

claimed process that organized information through mathematical correlations, was an abstract idea) (citing *Parker v. Flook*, 437 U.S. 584, 595 (1978)); *In re Abele*, 684 F.2d 902, 908 (CCPA 1982) (claimed method directed to calculating the difference between a local value and an average value of data, was directed to a mathematical algorithm and therefore subject matter ineligible); *Versata Dev. Group v. SAP Am., Inc.*, 793 F.3d 1306, 1312–13 (Fed. Cir. 2015) (claimed method of determining a price of a product based on arranging a hierarchy of organizational groups, associating pricing information based on the hierarchy, and storing, retrieving, and sorting the price information to determine the product price, was ineligible); *see also* MPEP 2106.04(a)(2). Appellant's Specification discloses that the scores and probabilities recited in the claim are calculations to determine statistical significance (Spec. ¶¶ 14, 45) that may use logarithmic-probability equations (*id.* ¶¶ 4, 42, 45–47, 49), and that the frequency for each of the candidate phrases may be calculated using mathematical integration. *Id.* ¶ 46. These types of mathematical equations may all be performed mentally or with pen and paper.

Nevertheless, we must still determine whether the abstract idea is integrated into a practical application, namely whether the claim applies, relies on, or uses the abstract idea in a manner that imposes a meaningful limit on the abstract idea, such that the claim is more than a drafting effort designed to monopolize the abstract idea. *See* Guidance, 84 Fed. Reg. at 54–55. We therefore (1) identify whether there are any additional recited elements beyond the abstract idea, and (2) evaluate those elements both individually and collectively to determine whether they integrate the exception into a practical application. *See id.*

Accordingly, we proceed to prong 2.

E. Step 2A, Prong 2

Here, the only elements in the claims beyond the abstract idea are "a computing system,"[7] "[a] set of documents," "generic texts," "[a] common source," "a processor,"[8] and "a memory."[9] *See* 2019 Revised Guidance, 84 Fed. Reg. at 52. The additional elements of the present claims do not integrate the abstract idea into a practical application because they do not impose any meaningful limits on practicing the abstract idea for the following reasons.

Appellant does not identify persuasively how the Specification sets forth an improvement in technology. The USPTO October 2019 Patent Eligibility Guidance Update ("Update") addresses how we consider evidence of improvement that is presented to us. The Update states:

> *the evaluation of Prong Two requires the use of the considerations (e.g. improving technology*, effecting a particular treatment or prophylaxis, implementing with a particular machine, etc.) *identified by the Supreme Court and the Federal Circuit, to ensure that the claim as a whole "integrates [the] judicial exception into a practical application* [that] will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.

Update, 11 (alterations in original) (emphases added). The Update further states:

> [d]uring examination, the examiner should analyze the

[7] Claim 3 also recites "the computer system," which appears to be referring to the computing system, and is therefore not a separate element. Claims 10 and 17 do not recite a computing system.
[8] A processor is recited only in claim 10.
[9] A memory is recited only in claim 10.

> "improvements" consideration by evaluating the specification and the claims to ensure that a technical explanation of the asserted improvement is present in the specification, and that the claim reflects the asserted improvement. Generally, examiners are not expected to make a qualitative judgment on the merits of the asserted improvement. *If the examiner concludes the disclosed invention does not improve technology, the burden shifts to applicant to provide persuasive arguments supported by any necessary evidence to demonstrate that one of ordinary skill in the art would understand that the disclosed invention improves technology*. Any such evidence submitted under 37 C.F.R. § 1.132 must establish what the specification would convey to one of ordinary skill in the art and cannot be used to supplement the specification. For example, in response to a rejection under 35 U.S.C. § 101, an applicant could submit a declaration under § 1.132 providing testimony on how one of ordinary skill in the art would interpret the disclosed invention as improving technology and the underlying factual basis for that conclusion.

Id. at 13 (emphasis added) (footnotes and citations omitted).

We disagree with Appellant's argument that the present claims are directed to a technological innovation. Appeal Br. 14–15, 16–17 (citing *McRO*; Spec. ¶ 69);[10] Reply Br. 5–6. In this case, the Examiner concludes that the present claims do not recite an improvement to technology, but rather amount simply to instructions for using generic computer components. Final Act. 3; Ans. 6–7. *See Affinity Labs of Tex. v. DirecTV, LLC,* 838 F.3d 1253, 1264—65 (Fed. Cir. 2016); *TLI Communications LLC v. AV Auto. LLC,* 823 F.3d 607, 612–13 (Fed. Cir. 2016) (a claim must include more than conventional implementation on generic components or

[10] A paragraph "69" does not appear in Appellant's Specification. The quoted language (*see* Appeal Br. 15) appears to be from paragraph 51 of Appellant's Specification.

machinery to qualify as an improvement to an existing technology). Consequently, we focus on any evidence Appellant cites as discussed in the Update.

Here, Appellant argues that the present claims provide technological improvements that include a computer system that can automatically extract a set of significant phrases from an input set of documents (Appeal Br. 14–15, 16; Reply Br. 6) and filtering out false phrases that are not significant. Appeal Br. 15 (citing Spec. ¶ 69).[11] However, these alleged improvements are improvements to textual analysis and determining statistical significance, which fall within categories of abstract ideas, as discussed *supra*, not an improvement to technology. "a claim for a *new* abstract idea is still an abstract idea." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). "[U]nder the *Mayo*/*Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility . . . ." *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016). Nor does Appellant's citation to the Specification (*see* Appeal Br. 15) demonstrate that the problem to be solved is a technological problem, but rather is in the realm of determining statistical significance in a manner that merely provides instructions to a generic computer operating in a generic manner. *See id.*; Spec. ¶ 51.

Furthermore, we find unavailing Appellant's argument that the claims recite steps which demonstrate a practical application (Reply Br. 3–6),

[11] A paragraph "69" does not appear in Appellant's Specification. The quoted language (*see* Appeal Br. 15) appears to be from paragraph 51 of Appellant's Specification.

because the additional elements in the claims, namely a computing system, a set of documents, generic texts, a common source, a processor, and a memory, do not, either individually or in combination, integrate the abstract idea into a practical application. Appellant's Specification discloses that these elements encompass generic components, such as a generic computer (Spec. ¶¶ 58–59), a generic processor (*id.* ¶ 60), a generic memory or storage system (*id.* ¶¶ 61–62), a generic set of documents (*id.* ¶¶ 13, 28), generic texts (*id.* ¶ 38), and a generic common source. *Id.* Merely adding generic hardware and computer components to perform abstract ideas does not integrate those ideas into a practical application. *See* Guidance, 84 Fed. Reg. at 55 (identifying "merely includ[ing] instructions to implement an abstract idea on a computer" as an example of when an abstract idea has not been integrated into a practical application).

In addition, the additional elements "[a] set of documents," "generic texts," and "the common source" do not themselves carry out any of the steps recited in the claims. *See* MPEP § 2106.05(g) ("The term 'extra-solution activity' can be understood as activities incidental to the primary process or product that are merely a nominal or tangential addition to the claim."). Rather, we conclude that these additional elements merely act as data inputs for carrying out the abstract ideas recited in the claims, such that they constitute extra-solution activity. *Id.* ("Extra-solution activity includes both pre-solution and post-solution activity. An example of pre-solution activity is a step of gathering data for use in a claimed process." *Id.*). For example, courts have found data gathering steps to be insignificant extra-solution activity. *See, e.g.*, *In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008)

(en banc) (characterizing data gathering steps as insignificant extra-solution activity), *aff'd sub nom.*, *Bilski v. Kappos*, 561 U.S. 593 (2010).

We are not persuaded by Appellant's citation to *McRO* to demonstrate that the present claims set forth an improvement in technology. *See* Appeal Br. 17. The subject claim considered by the *McRO* court concerned a method for automatically animating lip synchronization and facial expressions. *McRO*, 837 F.3d at 1303. The *McRO* court concluded the subject claims did not recite an abstract idea because the computer animation used a structure of limited rules that reflected a specific implementation which an animator would not likely have utilized. *Id.* at 1316. Thus, the claimed invention in *McRO* used "limited rules in a process specifically designed to achieve an improved technological result" over "existing, manual 3-D animation techniques." *Id.*

Unlike the claims of *McRO*, the present claims do not recite a specific implementation of rules that a human determining significance of letters, words, or phrases appearing in a document would not have utilized, and the present claims instead focus on an improvement to the abstract idea itself. The rules recited in the claims, namely subdividing, counting, calculating probabilities, calculating a prominence score (i.e., determining how prominent a word or phrase appears in a document; Spec. ¶ 51), calculating a stickiness score (i.e., determining whether terms are likely to appear together; Spec. ¶ 19), comparing, filtering, and storing, are all techniques, either individually or in combination, which have been used by human data analysts for years.

Appellant's argument that the present claims do not preempt any abstract idea does not persuade us that the claims are eligible. Reply Br. 6–

7. Although preemption may denote patent ineligibility, its absence does not demonstrate patent eligibility. *See FairWarning, IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016). For claims covering a patent-ineligible concept, preemption concerns "are fully addressed and made moot" by an analysis under the *Mayo*/*Alice* framework. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

With regard to Appellant's argument that the prior art does not teach the subject matter of the present claims (Appeal Br. 19), Appellant improperly conflates the requirements for eligible subject matter (§ 101) with the independent requirements of novelty (§ 102) and non-obviousness (§ 103). "The 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter." *Diehr*, 450 U.S. at 188–89; *see also Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376 (Fed. Cir. 2016) (stating that, "under the *Mayo/Alice* framework, a claim directed to a newly discovered law of nature (or natural phenomenon or abstract idea) cannot rely on the novelty of that discovery for the inventive concept necessary for patent eligibility").

Appellant does not make any other arguments pertaining to step 2A, prong 2. Because the present claims recite an abstract idea that is not integrated into a practical application, we proceed to Step 2B.

F. Step 2B

We agree with the Examiner that the claims do not recite "significantly more" than the abstract idea. Final Act. 4; Ans. 6.

We disagree with Appellant's argument that the Examiner's analysis is deficient, because "the rejection should identify any additional steps and

also clearly explain why these steps, including in combination of steps, do not add significantly more." Appeal Br. 20. Notably, the Examiner finds, and we agree, that "[t]he additional elements or combination of elements in the claims other than the abstract idea per se . . . amount to no more than mere instructions to implement the idea on a computer." Final Act. 4; *see also* Ans. 6. Mere instructions to apply an exception do not amount to "significantly more," per step 2B. *See* MPEP 2106.05(f).

We further disagree with Appellant's contention that the combination of claim steps are not well-understood, routine, or conventional. Appeal Br. 18–19. On the record before us, Appellant does not point to any evidence in the Specification to support this argument. *See id.* In particular, we determine that the additional elements recited in the claims, namely the computing system, set of documents, generic texts, common source, processor, and memory, whether considered alone or as an ordered combination, are well-understood, routine, or conventional. *See* Spec. ¶¶ 13, 28, 38, 58–62; *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (generic computer performing basic functions such as making calculations or computations); *Parker v. Flook*, 437 U.S. 584, 594 (generic computer performing mathematical algorithms); *Versata Dev. Group, Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1331, 1134 (Fed. Cir. 2015) (generic computer arranging a hierarchy of product groups, sorting information); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1361–63 (Fed. Cir. 2015) (gathering statistics, using data to estimate outcomes, automatically selecting based on the estimated outcomes). The steps recited in the present claims merely recite abstract

ideas that use a generic computing system (or generic processor and memory) to implement the abstract idea.

For at least the above reasons, we conclude, under the 2019 Memorandum, that each of Appellant's claims 3–6, 8–13, and 15–24, considered as a whole, is directed to a patent-ineligible abstract idea that is not integrated into a practical application, and does not include an inventive concept. We therefore sustain the Examiner's rejection of claims 3–6, 8–13, and 15–24 under 35 U.S.C. § 101.

CONCLUSION

In summary:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
3–6, 8–13, 15–24	101	Eligibility	3–6, 8–13, 15–24	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED